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# **NPG 8621.1: Procedural Requirements for Mishap Notification, Investigation, and Recordkeeping**

**Safety Directors' Meeting  
March 4, 2004**

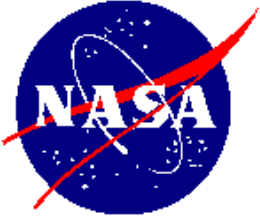
**Faith Chandler  
NASA Headquarters  
Office of Safety and Mission Assurance**



## **Overview**

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- **NPR 8621.1:**
  - **Revision Highlights**
  - **Immediate Notification Process**
  - **Mishap Investigation Notional Timeline**
- **Drug Policy**
- **MIWG Activities**
  - **Training Development**
  - **Website**
  - **Future Activities**



## NPR 8621.1 Revision Highlights

### NPR 8621.1 Signed: February 11, 2004

- Shortened, reorganized, and reformatted.
  - Only one “shall” per paragraph.
  - Limited NPR to requirements, with only a few exceptions.
  - Appendices removed. “How to” information will be included in a handbook that is now being developed.
- New emphasis:
  - All investigations must identify **root cause(s)**.
- “Mishap Classification Table” simplified.
  - Classification based on dollar loss and injury. (Mission failure based on cost of mission failure).
  - Term “Incident” changed to “Type D Mishap.”
  - All mishaps and close calls will be reported and investigated.
  - **Specific program and project exceptions have been removed.**



## NPR 8621.1 Revision Highlights

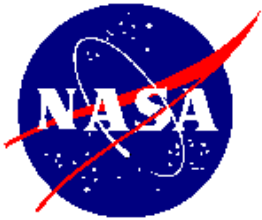
- Term “Investigating Authority” used throughout the document to refer to individual (MI), team (MIT), or board (MIB) authorized to conduct the safety mishap investigation.
- New personnel selection criteria:
  - All investigators must be federal personnel.
  - All investigating authorities must have:
    - One member trained in mishap investigation.
    - An ex-officio trained in mishap investigation. (Ex-officio will provide a quality check on investigation).
    - A safety officer and a human factors mishap investigator.
  - All MIBs shall include an occupational health physician as a member.
  - Legal and public affairs advisors are required.
  - In addition, MIBs for aircraft related mishaps shall have a member knowledgeable in aircraft maintenance, aviation safety, and aircraft operations. (The aviation safety person can be the safety officer).



## NPR 8621.1 Revision Highlights

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- “Roles and Responsibilities Table” included.
- **Roles & Responsibilities changed:**
  - Investigating Authority does not develop the CAP or the LL. (Now done by responsible organization/program).
  - **Endorsing Official added.** (No longer have an accepting official and an approving official).
  - Endorsing Official provides a recommendation for approval or rejection and provides comments related to the amplification or disagreement with elements of the report. **Endorsement & comments become a part of the final report.**
- Clear identification of required products from the investigation (parts of the mishap report).
  - Dependent upon the classification of the mishap.
  - **Close calls and incidents require fewer products** (elements in the reports).



## NPR 8621.1 Revision Highlights

The members and advisors of the investigating authority shall be federal personnel. (Nonfederal personnel may serve as consultants).

Nonfederal employees can not:

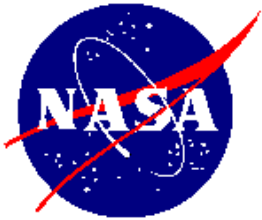
- Participate in deliberations (vote on findings).
- Sign the mishap investigation report.

If the investigating authority (chair, members, or advisors) included nonfederal employees, the investigating authority would be subject to the **Federal Advisory Committee Act (FACA)**.

FACA would impede investigations by placing extra requirements on the investigation proceedings thereby making it impossible to maintain privilege or conduct a good safety investigation.

**FACA requires the following:**

- Posting notice of meetings 15 days in advance.
- Holding meetings in public.
- Allowing public comment on deliberations.



## NPR 8621.1 Revision Highlights

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### Collateral Investigations:

- The investigating authority shall not distribute witness statements, notes, or transcripts of witness testimony taken during interviews, or medical records to the collateral investigation board, OIG, or any other Agency, unless ordered in a court of law.
- The investigating authority may provide (at their discretion) the collateral investigation board with access to factual data and physical evidence that will be contained within the mishap investigation report authorized for public release.  
(All requests for information should go to the chair).
- Members and/or Advisors of the investigating authority should not participate in the interviews and/or deliberations of the collateral investigation.
- Procedures for collateral investigations are being developed and implemented by the Office of the General Counsel.



## Immediate Notification Process

### **Within 1 Hour** **Type A, Type B, High** **Visibility Mishap, or** **High Visibility Close Call**

- Notify HQ by Phone
    - Duty 202.358.0006
    - Non-duty 866.230.6272
  - Immediately notify NTSB (if applicable)
- See section 1.6 for details

### **Within 8 Hours**

- Notify OSHA (if applicable)

#### Applicable:

Up to 30 days after mishap when:

- Death of Federal Employee
- Hospitalization 3 or more if 1 is a Federal Employee

### **Within 24 Hours**

- Notify HQ electronically
- Record **ALL** Mishaps & Close Calls in IRIS

**Each Center must have 1 documented mishap reporting process that captures all mishaps and close calls (personal injury, equipment damage, aircraft related incidents).**





## Mishap Investigation Notional Timeline

**Within 75 Workdays of Mishap**

Complete Investigation & Mishap Report

**Within An Additional 20 Workdays**

Review & Endorse Mishap Report

**Within An Additional 5 Workdays**

Approve or Reject Mishap Report

**Within An Additional 10 Workdays**

Authorize Report For Public Release

**Within An Additional 10 Workdays**

Distribute Mishap Report

**Concurrent**

**Within 15 Workdays of Being Tasked**

Develop CAP

**Within 10 Workdays of Being Tasked**

Develop LL

Within 135 days  
of mishap

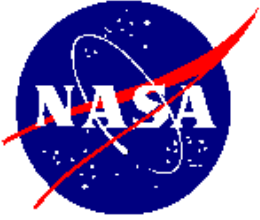


## NPR Drug Testing Policy

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### Drug Testing Policy: Where do we stand?

- **NPR 3792.1A**, “Plan for a Drug Free Workplace,” covers illegal drugs only – Authority comes from 1986 Pres. Reagan EO 12564.
- During the NPR 8621.1 NODIS review, there was concurrence from most AAs on testing for presence of illegal drugs, legal drugs, and alcohol after a mishap. (Some believed additional information was needed).
- Additionally, the new requirements (on legal drugs and alcohol) in NPR 8621.1 needed a union review. There was inadequate time for union review within time allotted by NODIS review process.
- **Text requiring testing for legal drugs and alcohol removed temporarily from NPR 8621.1. (Illegal drug testing remains).**



## Drug Testing Policy

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### Drug Testing Policy: Where do we stand?

- **Dec. 2003: Meeting held at HQ (CHMO, Personnel, Legal, OSMA)**
  - **All parties agreed to support legal drug testing and alcohol testing. (NASA is currently one of the only Agencies that does not do this).**
  - **Drafted information to cover testing policy, acceptable levels, etc.**
  - **New information is still being refined.**

### Future:

- **Union and NODIS review of requirements for legal drug testing and alcohol testing will occur.**
- **Additional paragraphs will be added to NPR 8621.1 as an addendum.**



## **MIWG Training Tiger Team Workshop**

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### **Training Development Workshop (January, 2004)**

**Developed Sections of the Draft “Mishap Investigation Instructional Plan” that included:**

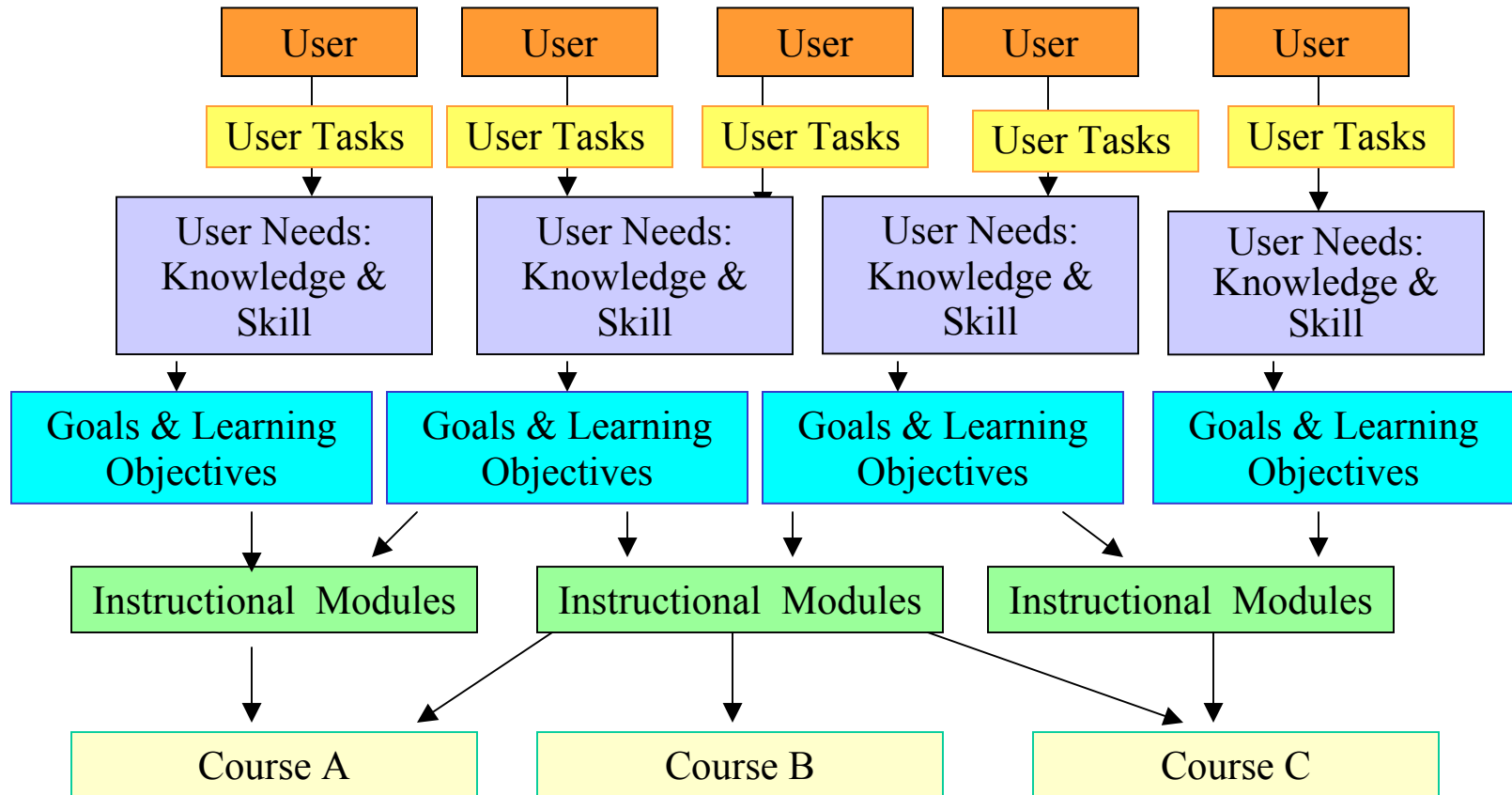
- Intended constituents/users**
- List of constituent/user tasks related to mishaps**
- List of user-needed information and skills**
- 83 learning objectives for tasks/users**
- List of possible instructional modules.**

### **After Workshop**

- Mishap Investigation Instructional Plan will be refined by a contractor that specializes in training development.**
- Plan will be sent out to community for review & comment.**
- New Mishap Investigation SOLAR class will be developed.**
- Existing instructor-led courses will be updated and modified per plan.**



## Building Blocks of Instructional Plan



Instructional Plan



## **MIWG Future Activities**

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### **Training Development**

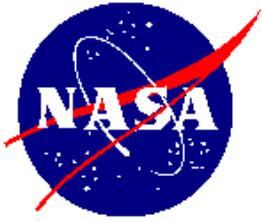
- **Review and comment on instructional plan.**
- **Review new SOLAR course.**
- **Review other training and curricula as developed by contractors.**

### **Mishap Investigation Handbook**

- **Provide information for handbook.**
- **Review and redline handbook.**

### **Tools & Website**

- **Assist in the identification and testing of mishap investigation tools.**
- **Assist in the development of tools, as needed.**



## **NASA PBMA Mishap Investigation Website**

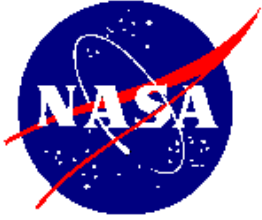
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### **Website Link**

<http://ai-pbma-kms.intranets.com/login.asp?link=>

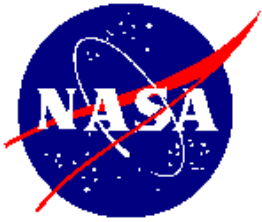
### **Contents of Site**

- Policies, procedures, tools from NASA and many other Agencies.
- Links to software, mishap databases, training centers, and more.
- List of investigators from around the world.



# Back Up Charts





## **MIWG Activities: Training Development**

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### **Purpose of MIWG's Training Development Activities**

- **Ensures that we understand the training needs of all the Agency professionals.**
- **Ensures that we have training for all constituent groups.**
- **Aids in content development.**
- **Ensures that training provides the needed information and skills.**
  - **e.g., provides info. for both close calls and mishaps.**
  - **e.g., provides more hands-on to ensure participants can perform an investigation after completing the training.**
- **Revises course to be consistent with new NPR.**



## Existing Mishap Investigation Training

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### Existing NASA Mishap Investigation Courses

#### **NSTC**

- ✓ **MORT-Based Mishap Investigation**
- ✓ **Human Factors in Accident Investigation**
- ✓ **Space Shuttle Crash Investigation**
- ✓ **Aircraft Mishap Investigation**
- ✓ **Root Cause Analysis**

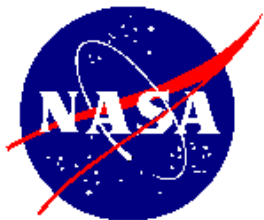
#### **SOLAR**

- ✓ **Mishap Reporting Familiarization**



## Mishap Classification Levels

Classification Level	Property Damage	Injury
<b>Type A</b>	<p>Total direct cost of mission failure and property damage is \$1,000,000 or more,</p> <p><i>or</i></p> <p>Crewed aircraft hull loss has occurred,</p> <p><i>or</i></p> <p>Occurrence of an unexpected aircraft departure from controlled flight (except high performance jet/test aircraft such as F-15, F-16, F/A-18, T-38, and T-34, when engaged in flight test activities).</p>	<p>Occupational injury and/or illness that resulted in:</p> <p>A fatality,</p> <p><i>or</i></p> <p>A permanent total disability,</p> <p><i>or</i></p> <p>The hospitalization for inpatient care of 3 or more people within 30 workdays of the mishap.</p>
<b>Type B</b>	<p>Total direct cost of mission failure and property damage of at least \$250,000 but less than \$1,000,000.</p>	<p>Occupational injury and/or illness has resulted in permanent partial disability.</p> <p><i>or</i></p> <p>The hospitalization for inpatient care of 1-2 people within 30 workdays of the mishap.</p>
<b>Type C</b>	<p>Total direct cost of mission failure and property damage of at least \$25,000 but less than \$250,000.</p>	<p>Nonfatal occupational injury or illness that caused any workdays away from work, restricted duty, or transfer to another job beyond the workday or shift on which it occurred.</p>
<b>Type D</b>	<p>Total direct cost of mission failure and property damage of at least \$1,000 but less than \$25,000.</p>	<p>Any nonfatal OSHA recordable occupational injury and/or illness that does not meet the definition of a Type C mishap.</p>
<b>Close Call</b>	<p>Total direct cost of mission failure and property damage is less than \$1,000</p> <p><i>or</i></p> <p>An occurrence or condition of employee concern in which there is no property damage but possesses the potential to cause a mishap.</p>	<p>Minor injury requiring first aid which possesses the potential to cause a mishap</p> <p><i>or</i></p> <p>An occurrence or condition with no injury but possesses the potential to cause a mishap.</p>



## Classification Level, Investigating Authority, Products, and Officials

	Classification Level & Investigation Type					
	High Visibility Mishap or Close Call	Type A	Type B	Type C	Type D	Close Call
Investigating Authority	MIB <sup>1</sup>	MIB (at least 5 members)	MIB (at least 3 members)	MIT or MI	MIT or MI	MIT or MI
Required Products	All (a-l) <sup>1</sup>	All (a-l)	All (a-l)	a-d, f, j, k, l	a, f, j, k, l	a, f, j, k, l
Appointing Official	EAA <sup>1</sup>	Administrator <sup>2</sup> or Designee or EAA	CD or Director, HQ Ops.	CD or Director, HQ Ops., or Designee or EAA Designee <sup>6</sup>	CD or Director, HQ Ops., or Designee or EAA Designee <sup>6</sup>	CD or Director, HQ Ops., or Designee or EAA Designee <sup>6</sup>
Concurrence on MIB Membership	AA/OSMA <sup>1</sup>	AA/OSMA	AA/OSMA	-----	-----	-----
Endorsing Officials	Appointing Official <sup>1</sup> , AA/OSMA <sup>1</sup> , AMO <sup>1,3</sup> , Procurement <sup>1</sup> , CHMO <sup>1,4</sup> , Other <sup>1</sup>	Appointing Official, Administrator <sup>2</sup> , AA/OSMA, AMO <sup>3</sup> , CHMO <sup>4</sup> , Procurement <sup>5</sup> , Other <sup>5</sup>	Appropriate EAA, Appointing Official, AA/OSMA, AMO <sup>3</sup> , CHMO <sup>4</sup> , Procurement <sup>5</sup> , Other	Appointing Official and Center Process	Appointing Official and Center Process	Appointing Official and Center Process
Officials Reviewing Mishap Report Prior to Authorization for Public Release	Legal, OPA, Import/Export Control	Legal, OPA, Import/Export Control	Legal, OPA, Import/Export Control	Center PAO Import/Export Control, and Center Process	Center PAO, Import/Export Control, and Center Process	Center PAO, Import/Export Control, and Center Process